UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA

VISIBILITY LABORATORY SAN DIEGO 52, CALIFORNIA

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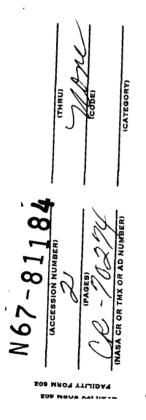
Progress of the work performed to date under subject grant is herein reported. Owing to the demands placed upon the Principal Investigator and the Visibility Laboratory by the acceleration of the GEMINI program, work on the grant was significantly delayed. At the conclusion of GT-7, however, we have been able to devote essentially full time to the research equipment development, so that it is anticipated that the work will have stabilized at the originally planned local in the next few months.

In brief outline, the status of the work may be reported as follows:

Optics - The large fiber optics bundle which transmits light from the projector to the individual stimulus light pipes has been completed and is ready for installation. The configuration of the light pipes is being optimized for best flux utilization at each of the stimulus sizes. Troffers to provide continuously adjustable adapting luminances within the hemisphere have been made. The target projector has been reworked, aligned, and readied for installation.

Electrical - The automatic presentation and recording equipment has been returned from Houston and is ready for installation. Regulated power from existing lines is being brought into the experimental space.

Mechanical - The couch assembly for holding the observer has been finished. A modified response box has been designed and its construction awaits delivery of components. The head support assembly is completed, as is the bearing assembly for the curved track which bears the projector. The track has been delivered (after we rejected an earlier one which did not have the required curvature), and various clamping and indexing devices have been finished. Modifications to the experimental room are under way, and have involved local lowering of the floor and invasion of the space above the ceiling to accommodate parts of the equipment and the observers' couch.





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Observers - We have selected and hired four observers who will participate in the experiments. They were chosen on the basis of their visual normalcy, willingness to participate for two or three years, motivation and interest. Their appointment as Laboratory Assistants has been made on a hourly basis.

General - Because the hemisphere will not, in all probability, be ready for use for a menth or two, the observers are beginning work in the Visibility Laboratory's general purpose vision research facility. By so doing, we will be able to complete the practice sessions needed for the forced-choice psychophysical method, to obtain baseline data for the case of central vision, and, if necessary, commence data collection in the near periphery. By the time the hemisphere is operational, all observers will be able to transfer to it without any retraining.